Commonwealth of Virginia
Department of General Services
Division of Consolidated Laboratory Services
Richmond, Virginia

Drinking Water Sample Collection Guide

Division of Consolidate Laboratory Services
600 N. 5th Street
Richmond, Virginia 23219
(804) 648-4480

DCLS

Drinking Water Sample Collection Guide

Document #:15538
Revision: 4
Date Published: 02/02/17
Issuing Authority: Group Manager

Table of Contents

GENERAL SAMPLING PROCEDURES FOR DRINKING WATER TESTING

I. Your Order

A. This shipment contains the sampling materials for your requested water analysis. Each shipment should have a 12x15 inch ziplock bag containing your Customer Order and Sample Requisition Form(s).

1. Please verify that you have received the correct sampling and packing components by using the visual aids and instructions below which correspond to the kit type(s) you have ordered.

2. BEFORE SAMPLING please check your sample container for any kind of damage, contamination, or other issues. If your kit arrives to you in an unsatisfactory condition, DCLS will replace it free of charge.

3. Between receipt of your kit from DCLS and sampling, please store your kits in dry, clean conditions. Kits should be stored in a climate-controlled space to avoid any accumulation of moisture or contamination.

II. Sample Requisition Form (*See Example forms on Page 4-5*)

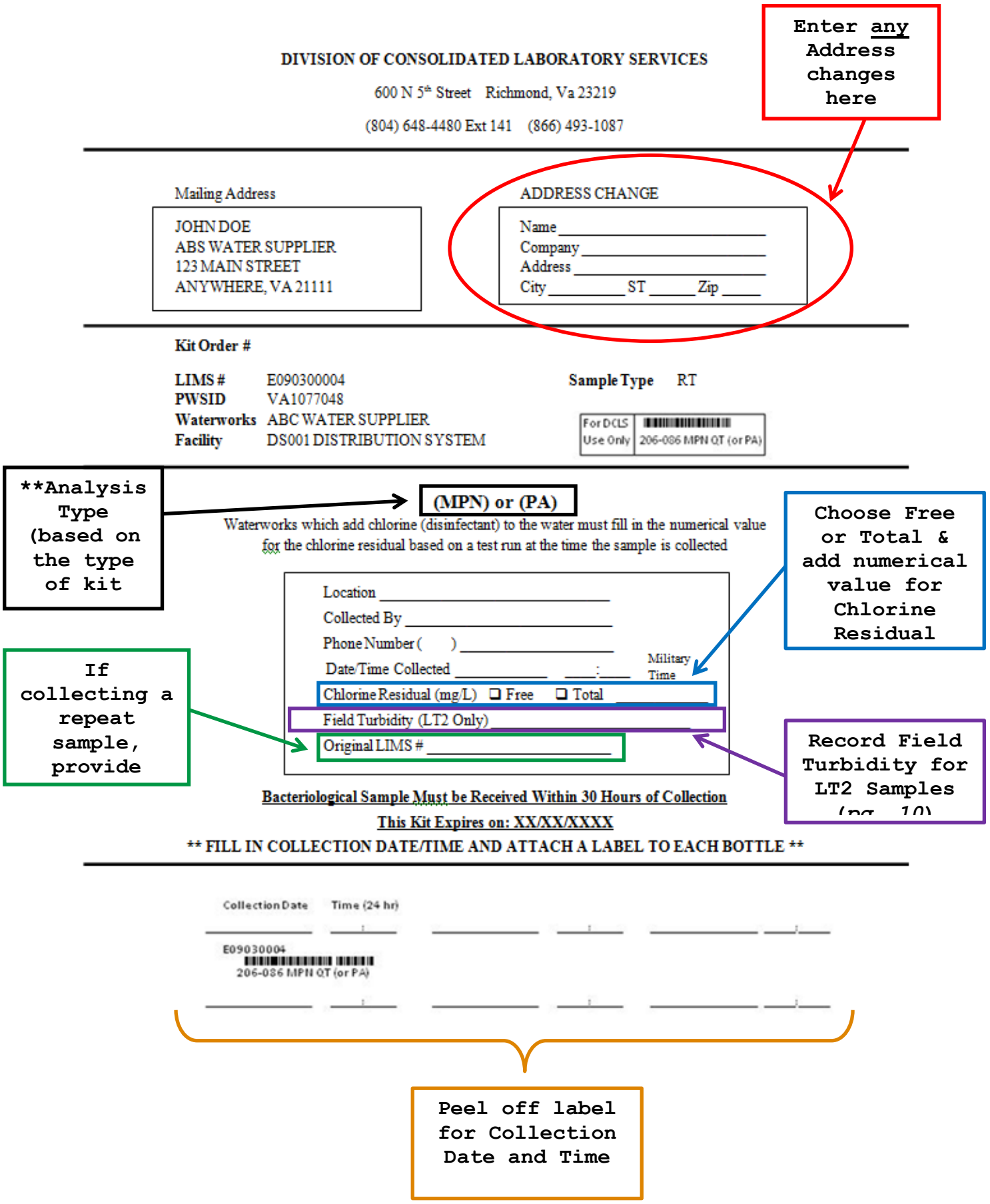
A. A Sample Requisition Form for **each sample kit** is provided in your shipment. The kit name listed on the form should match the label on the sample container. Fill in the general information fields in the form's center box, including:

1. "Location" – where the sample was collected.
2. "Collected By" – the individual who collected the sample.
3. "Phone Number" – the best number of contact, including area code.
4. "Date/ Time Collected" – the full date and time (MM-DD-YY) the sample was collected.

B. Each Sample Requisition Form contains a peel-off label with a bar code to be placed on its accompanying sample container. Write the information from the "Date/ Time Collected" field on the label and then place the label on the sample. **Please write legibly with a ball point pen.**

Note: For collection time, use 24-hour military time, i.e. add 12 hours to a civilian time between noon and midnight.

Civilian	Military	Civilian	Military	Civilian	Military
6:00 AM	0600	12:00 Noon	1200	5:00 PM	1700
7:30 AM	0730	1:00 PM	1300	7:25 PM	1925
9:00 AM	0900	3:25 PM	1525	9:00 PM	2100


Enter any Address changes here
DIVISION OF CONSOLIDATED LABORATORY SERVICES
600 N 5th Street Richmond, Va 23219
(804) 648-4480 Ext 141 (866) 493-1087
Mailing Address
JOHN DOE
ABS WATER SUPPLIER
123 MAIN STREET
ANYWHERE, VA 21111
ADDRESS CHANGE
Name
Company
Address
City ST Zip
Kit Order #
LIMS # E090300004
PWSID VA1077048
Waterworks ABC WATER SUPPLIER
Facility DS001 DISTRIBUTION SYSTEM
Sample Type RT
For DCLS Use Only
206-036 MPN QT (or PA)
**Analysis Type (based on the type of kit
(MPN) or (PA)
Waterworks which add chlorine (disinfectant) to the water must fill in the numerical value for the chlorine residual based on a test run at the time the sample is collected
Choose Free or Total & add numerical value for Chlorine Residual
Location
Collected By
Phone Number ( )
Date/Time Collected ____:____ Military Time
Chlorine Residual (mg/L) ❑ Free ❑ Total
Field Turbidity (LT2 Only)
Original LIMS #
If collecting a repeat sample, provide
Record Field Turbidity for LT2 Samples
Bacteriological Sample Must be Received Within 30 Hours of Collection
This Kit Expires on: XX/XX/XXXX
** FILL IN COLLECTION DATE/TIME AND ATTACH A LABEL TO EACH BOTTLE **
Collection Date
Time (24 hr)
E09030004
206-036 MPN QT (or PA)
Peel off label for Collection Date and Time

Enter any Address changes here

DIVISION OF CONSOLIDATED LABORATORY SERVICES
600 N 5th Street Richmond, Va 23219
(804) 648-4480 Ext 141 (866) 493-1087

Mailing Address

ADDRESS CHANGE
Name _____
Company _____
Address _____
City _____ ST ____ Zip _____

Kit Order # 226890 FEE
LIMS # E160205143
PWSID VA5111520
Waterworks Facility

2016 Qtr 2

Sample Type RT

For DCLS Use Only
206-004 NO2/NO3

**Analysis Type (based on the type of kit

NN

Matches label on sample container

Location _____
Collected By _____
Phone Number ( ) _____
Date/Time Collected _____ : _____ Military Time

Please complete for Lead & Copper or Fluoride Samples

Lead/Copper
Date Last Used _____
Time Last Used _____ : _____ Military Time

Fluoride (Check one)
❑ Colorimetric SPADNS
❑ Electrode
❑ Ion Chromatography
_____ mg/L

Test-Specific Information for Lead & Copper

Test-Specific Information for Fluoride Samples (*pg. 11*)

This Kit expires on: 08/31/2016

** FILL IN COLLECTION DATE/TIME AND ATTACH A LABEL TO EACH BOTTLE **

Collection Date Time (24 hr)
_____ : _____

E160205143 NN
206-004 NO2/NO3 2016-2

_____ : _____ _____ : _____ _____ : _____

_____ : _____ _____ : _____ _____ : _____

Peel off label for Collection Date and Time

III. General Guidelines for Sample Collection

A. This section outlines the general steps for collecting all types of Drinking Water Samples. Specific steps for individual sample types are noted below (*see Table of Contents - pg. 2*).

1. Do not sample from leaking taps. If your site for collection is questionable in some way, consult your local Virginia Department of Health (VDH) Office of Drinking Water field office representative before sampling.

2. When using the label from the Sample Requisition Form, please place this label vertically (aligned with the length of the sample bottle). This assists the lab in sample handling.

3. Use a ball point ink pen or permanent ink to write on sample labels. Gel pens will run or smear upon packaging and transport, making the label illegible.

4. Each type of sample in this guide has a specific "Holding Time" -- this is the length of time that the sample is considered valid. Holding Time for a sample begins at the Date/ Time Collected and ends at the start of laboratory analysis.

***** Note: Samples received out of Holding Time will be rejected on the grounds that the sample condition is unsatisfactory. Please be aware of your sample's holding time and how long transportation of the sample will take when sending it to DCLS for testing. *****

5. The sample containers provided to you are free of contaminants and many include a preservative. To avoid contamination and preservative loss, do not rinse or overfill any containers. Additionally, please be sure not to touch the sample container directly to the pipe or faucet from which you collect.

a) Please return empty preservative containers to DCLS for safe disposal.
b) Acids and bases used as preservatives **must be handled with care** during collection. Kits which contain these preservatives have been noted below.

6. Due to our rigorous quality standards, **DCLS will only accept kits provided by DCLS.** For a list of these kits and their collection instructions, see Table of Contents.

IV. SAMPLE REJECTION CRITERIA

A. DCLS rejects samples submitted in improper condition such as:

1. The peel-off label on the sample container does not match the information on the Sample Form (i.e. barcodes, numbers)
2. Collection information on the form and bottle label is incomplete
3. The sample was received outside of the holding time for the test to be performed
4. Insufficient sample volume
5. Expired kit – DCLS kits have a 9 month expiration
6. **Samples requiring a temperature preservation –** received above 6.0^{o}C after the day of collection
7. **Bacteriological samples –** soapy or bleach residue in or on sample bottle
8. Broken, cracked, or leaking sample container

V. Packaging Instructions

A. For Drinking Water Kits that include a Mailing Sleeve (BACT, FLR, NN, MET, and URANIUM *only*):

1. Enter your return address on the mailing sleeve address label.

2. Put the sample bottle in the small bubble bag with the absorbent pad, close the bubble bag, and place this in the mailing sleeve.

3. Fold the Sample Form and place it in the mailing sleeve (*not inside the bubble bag in case of leaks*). Please do not tape the mailing container.

B. For Drinking Water Kits that **require cooling** (LT2, CARB, CYN3, DISINFECT, DIQT, FUMI, HAA5, HERB, INO/HARD, SOC, SUVA, THM/VOC, TOC, TOCAL, and UNN):

1. *If you have ordered a THM, VOC, or HAA5 kit:*
   You should have a foam rack included in your kit. Snugly fit your sample vials in the rack to keep them safe during shipping.

   If your sample container for any other kit is made of glass:
   Your kit should include bubble wrap. Use this to cushion your sample during transport.

2. **Surround your sample with as much ice as can fit in your cooler and still close.** This will prevent your sample from being rejected for not meeting temperature requirements. Your cooler will also come with a small temperature probe bottle filled with dyed red water for measuring the arrival temperature of your samples: **please do not remove this from the cooler.**

3. Close the Styrofoam cooler, place the sample form on the top of the cooler lid, then close the outer shipping box with tape.

4. Place the blue DCLS address label on the shipping container.

C. For Lead & Copper and RAD Kits:

Lead & Copper and RAD samples do not require temperature preservation and, therefore, do not need to be packed with ice. For these samples, you may simply ship them back in the same box you received from DCLS.

VI. Shipping Instructions

A. Ship your sample(s) to DCLS using one of the following methods:

1. DCLS Courier Service – Recommended

a) Visit the DCLS website (www.dgs.virginia.gov/dcls) and choose "Courier List" from the menu on the right or call us at (804)-648-4480 ext. 138 to determine the nearest courier pick up location. This service is free of charge and ensures that your sample will arrive at DCLS on the next business day.

2. UPS
3. Federal Express
4. Personal Carrier

TO:

Division of Consolidated Laboratory Services
600 N. 5th Street
Richmond, VA 23219-1439

B. In order to keep the cost of testing down, we ask you to please arrange for shipment of all routine Drinking Water Samples to arrive at the lab **during regular business hours, Monday through Thursday.** Compliance with this request ensures that your samples will be processed when the laboratory is fully staffed and operating at full capacity.

Note: Samples may be rejected and not replaced free of charge if multiple attempts to submit samples occur on Fridays, after business hours, or during Holiday weeks.

C. Below is a list of observed State Holidays. **Please avoid sending samples with short holding times during the week of a State Holiday. This will ensure all samples are processed within EPA required holding times and arrive at the correct temperatures.** If the laboratory is unable to process a sample due to an expired holding time or improper temperature, the sample will be rejected and the water supply will be required to collect another sample.

New Year's Day	*Memorial Day*	*Veteran's Day*
Lee-Jackson Day	*Independence Day*	*Thanksgiving*
Martin Luther King, Jr. Day	*Labor Day*	*Christmas Eve*
George Washington Day	*Columbus Day*	*Christmas Day*

D. The governor may close state offices for extraordinary events at his or her discretion. Courier schedule alterations are posted on the DCLS website (www.dgs.virginia.gov/dcls) under "Courier Updates" whenever possible. DCLS attempts to continue usual operations during inclement weather events but cannot guarantee delivery receipt. If a cancellation occurs and causes samples to be rejected, replacement kits will be sent.

BACTERIOLOGICAL WATER SAMPLES

Presence/ Absence (**PA**)
&
Most Probable Number Quanti-Tray (**MPN QT**)

Code: BACT

Holding Time:

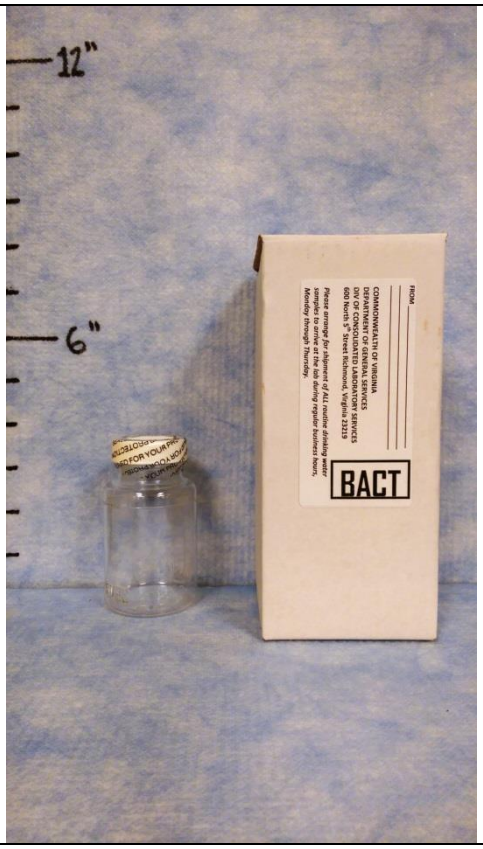
VERY SHORT: 30 hours
Submit these samples Mon-Thurs only

Cooling required during shipment?

No.

Sample container:

One (1) Sterile, 120mL bottle, with graduation at the 100mL volume.
-Contains $Na_2S_2O_3$ preservative



COLLECTION INSTRUCTIONS

1. Remove faucet attachments such as screen or splash guard.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
  a) Perform the chlorine residual test, if necessary.
3. Carefully remove the bottle cap. Do not touch the inside of the cap or rim at the top of the bottle.
4. Fill the bottle to about a half-inch above the 100mL line. **If you do not fill to at least the 100mL line, your sample will be rejected as QNS (Quantity Not Sufficient).** Leave some airspace between the cap and the sample to allow mixing in the laboratory.
5. The peel-off label adheres better to a dry bottle. Dry the outside of the sample bottle and remove the completed label from the form. Place the label on the bottle aligned with the bottles length.

Long Term 2 Enhanced Surface Water Treatment Rule
(LT2)

Code: LT2

Holding Time:

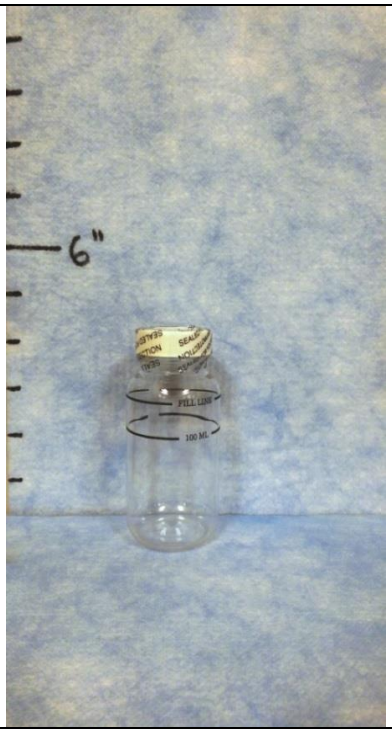
VERY SHORT: 30 hours
Submit these samples Mon-Thurs only

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-10° C, or 32-50° F
(See shipping instructions)

Sample container:

One (1) Sterile, 150mL bottle, with graduation at the 100mL volume.



COLLECTION INSTRUCTIONS

1. Collect the sample **before chemical treatment.** This includes the addition of coagulants, oxidants, and disinfectants.
2. If filter backwash water is recycled in the system to be collected from, collect the sample at a point **before the addition of the backwash water.**
3. Collect the sample **only** from a location that has been approved by the Office of Drinking Water.
4. Remove faucet attachments such as screen or splash guard.
5. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
6. Measure the turbidity and record it on the Sample Requisition Form (*example on pg. 4*).
7. Carefully remove the bottle cap. Do not touch the inside of the cap or rim at the top of the bottle.
8. Fill the bottle to about a half-inch above the 100mL line. **If you do not fill to at least the 100mL line, your sample will be rejected as QNS (Quantity Not Sufficient).** Leave some airspace between the cap and the sample to allow mixing in the laboratory.
9. The peel-off label adheres better to a dry bottle. Dry the outside of the sample bottle and remove the completed label from the form. Place the label on the bottle aligned with the bottles length.

Drinking Water Chemistry Samples

Fluoride

(FLR)

Code: FLR

Holding Time

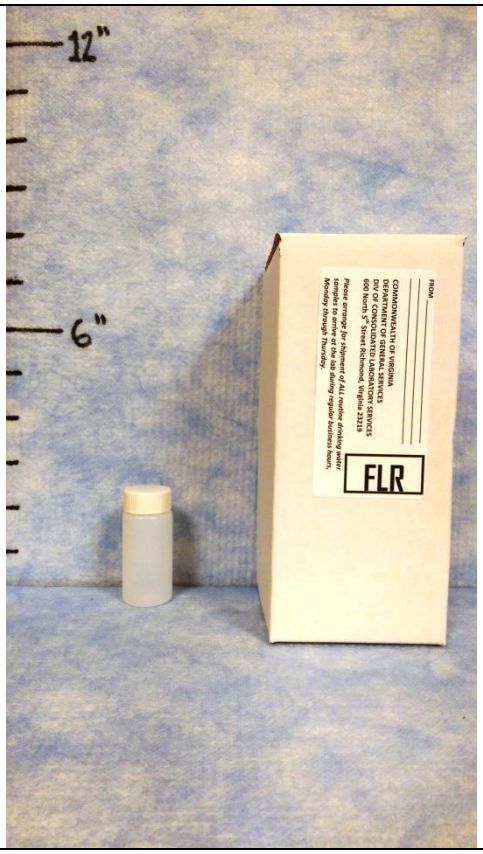
LONG: 28 days

Cooling required during shipment?

No.

Sample container:

One (1) 20mL plastic vial



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

Note: Fluoride samples are also available for purchase by dental offices so that private wells can be tested before an additional fluoride prescription is written for patients.

Lead and Copper
(L&C)

Code: L&C

Holding Time:

MEDIUM: 14 days
(*6 months after laboratory preservation*)

Cooling required during shipment?

No.

Sample container:

One (1) 1-Liter plastic, wide-mouth bottle.

COLLECTION INSTRUCTIONS

1. Sampling for L&C requires at least six (6) hours during which no water is used from the tap being sampled in addition to any nearby taps. Record the Time/ Date Last Used on the Sample Requisition Form (*see example on pg. 5*).

DO NOT FLUSH THE TAP
BEFORE THE SIX-HOUR PERIOD OF NON-USE

2. Use a kitchen or bathroom cold water tap for sampling. **Be sure not to sample from a tap with a water softener and do not remove the aerator before sampling.**

3. Place the bottle below the faucet and open the cold water tap. **Fill the container completely to the neck under the threads.**

4. Apply the cap to the container tightly. Invert the container to check for leaks.

5. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

6. If plumbing repairs have been made since the previous sampling, note this on the sample form.

Metals
(MET)

Code: MET

Holding Time

LONG: 28 days

Cooling required during shipment?

No.

Sample container:

One (1) 250mL Nalgene wide-mouth bottle

-Contains HNO_3 preservative

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

Nitrates/ Nitrites
(NN)

Code: NN

Holding Time

MEDIUM: 28 days

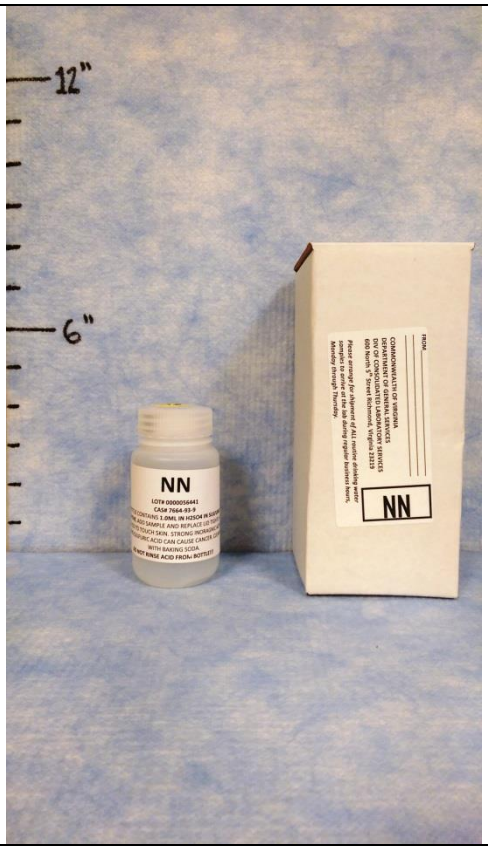
Cooling required during shipment?

No.

Sample container:

One (1) 125mL Nalgene wide-mouth bottle

-Contains H_2SO_4 preservative



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

Radiological
(RAD)

Code: RAD

Holding Time

SHORT: 5 days
(*6 months after laboratory preservation*)

Cooling required during shipment?

No.

Sample container:

One (1) 3.785L plastic Cubitainer

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

Uranium
(URANIUM)

Code: URANIUM

Holding Time

VERY LONG: 6 months

Cooling required during shipment?

No.

Sample container:

One (1) 250mL Nalgene wide-mouth bottle

-Contains HNO_3 preservative

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).

Carbamates (CARB)

Code: CARB

Holding Time

LONG: 28 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 40mL amber glass vials
-Contains $Na_2S_2O_3$ and $ClCH_2CO_2H$ preservatives

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from one sample vial. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Cyanide 335 (CYN3)

Code: CYN3

Holding Time

MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

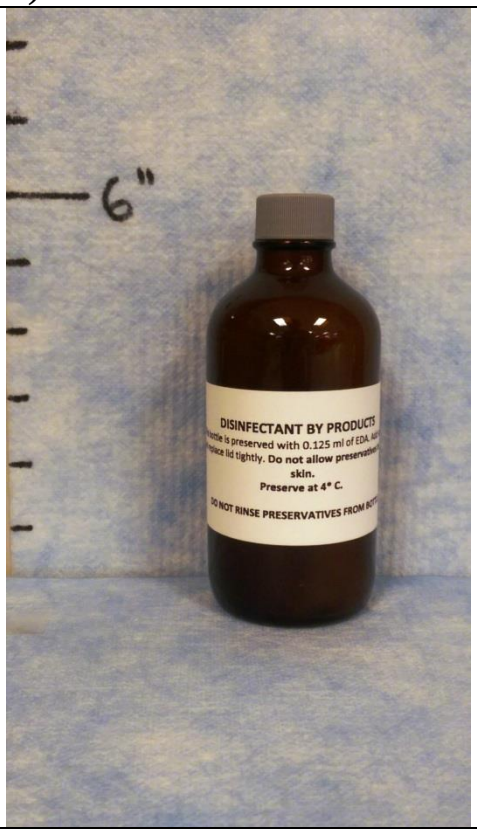
One (1) 250mL narrow-mouth amber glass bottle
-Contains NaOH preservative
& one (1) 40mL clear glass vial
-Contains $NaAsO_2$ preservative

COLLECTION INSTRUCTIONS

1. **<u>If the sample contains chlorine</u>**, add the Chlorine Neutralizing vial contents to the sample container before collecting the sample.
   <u>If the sample does not contain chlorine</u>, do not add the Chlorine Neutralizing vial.
   Caution: Handle with care. Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
2. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
3. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
4. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
5. Fill the container completely, including as little air as possible.
6. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
7. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Disinfectant By-Products
(DISINFECT)

Code: DISINFECT



Holding Time

MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

One (1) 250mL narrow-mouth, amber glass bottle
-Contains EDA preservative

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Diquat
(DIQT)

Code: DIQT

Holding Time

SHORT: 7 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 250mL opaque Nalgene bottles
-Contains H_2SO_4 and $Na_2S_2O_3$ preservatives

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from one sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample bottles.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Fumigants
(FUMI)

Code: FUMI

Holding Time

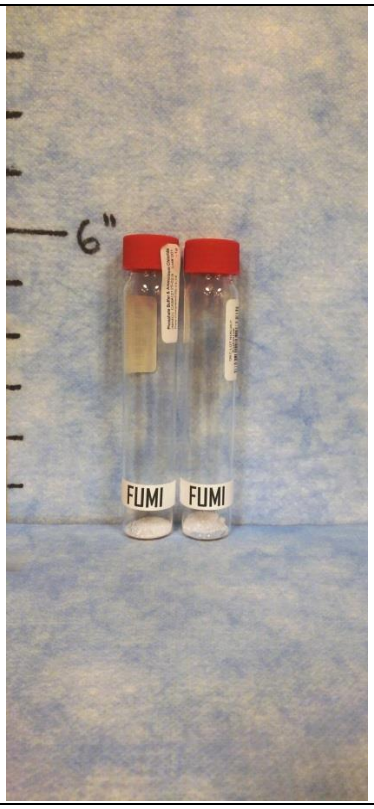
MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 60mL clear glass vials
-Contains Phosphate buffer and NH_4Cl preservatives



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from one sample vial. Do not touch the inside of the cap or rim at the top of the bottle.
    a. **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Haloacetic Acid
(HAA5)

Code: HAA5

Holding Time

MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 60mL amber glass vials
-Contains NH_4Cl preservative

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from one sample vial. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Herbicides
(HERB)

Code: HERB

Holding Time

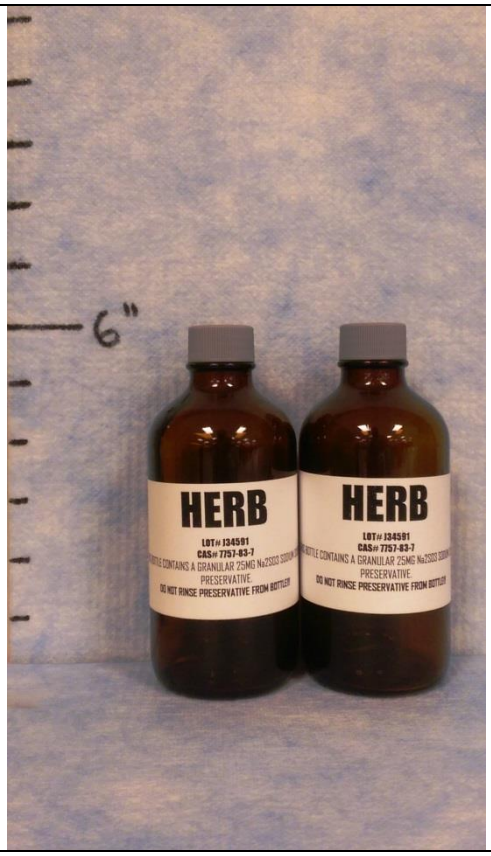
MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 250mL narrow-mouth, amber glass bottles
-Contains Na_2SO_3 preservative



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from one sample container. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample bottle.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Inorganics/ Hardness (INO/HARD)

Code: INO/ HARD **

Holding Time

VERY SHORT: 48 hours
Submit these samples Mon-Thurs only

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

One (1) 1.89L plastic container & one (1) 250mL Nalgene wide-mouth bottle
- Contains HNO_3 preservative

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the 250mL bottle labeled "Hardness." Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Fill the 1.89L container from the same source as the Hardness bottle. Check for leaks, then label this container as well. You do not need to shake this container, as there is no preservative to mix in this bottle.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

****For INO samples, skip steps 3-6 and collect your sample in the 1.89L container****

Semi-Volatile Organic Compounds (SOC)

Code: SOC

Holding Time

MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) **empty** 1-Liter narrow-mouth amber glass bottles
-Contains Na_2SO_3 preservative
Two (2) 10mL clear preservative vials
-Contains HCl preservative
One (1) 1-Liter **pre-filled field blank**

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from one of the **empty sample bottles –do not open the field blank-** and fill about 3/4 full. **Be careful not to allow the sample to contact any plastic.**
4. Tightly cap the container, invert to check for leaks, and then shake vigorously for one (1) minute.
5. Carefully add the contents of one (1) preservative vial to the collected sample and shake vigorously for an additional one (1) minute. Take care not to add preservative to the field blank. **Caution: handle with care. Preservative vials contain 1:1 hydrochloric acid. Rinse hands thoroughly in case of spill.**
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the second sample container.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Specific Ultraviolet Absorbance (SUVA)

Code: SUVA

Holding Time

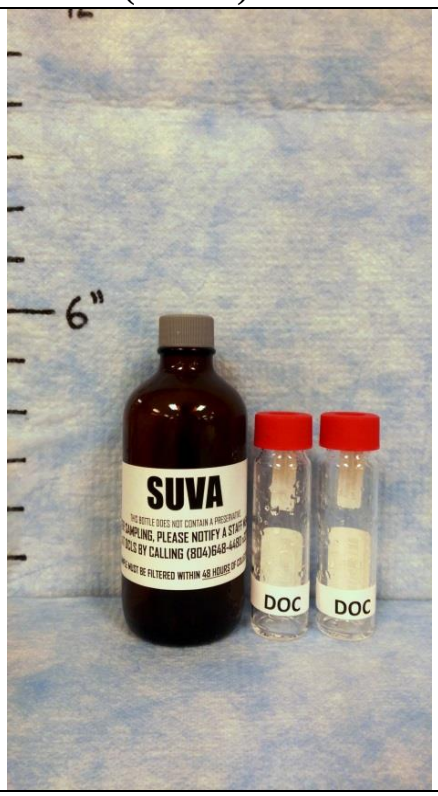
VERY SHORT: 48 hours
Submit these samples Mon-Thurs only

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

One (1) 250mL narrow-mouth, amber glass bottle
Two (2) 40mL clear glass sample vials
-Contains H_2SO_4 preservative



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from **one 40mL clear glass sample vial** (*for 250mL amber bottle, see step 8*). Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial.
8. **For the 250mL amber glass bottle**, follow steps 1-3, then fill the container to the neck under the threads, leaving as little air as possible. Then proceed to step 6 (there is no preservative in the 250mL amber bottle, so mixing is not required).
9. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Trihalomethanes (THM)

Code: THM

Holding Time

MEDIUM: 14 days

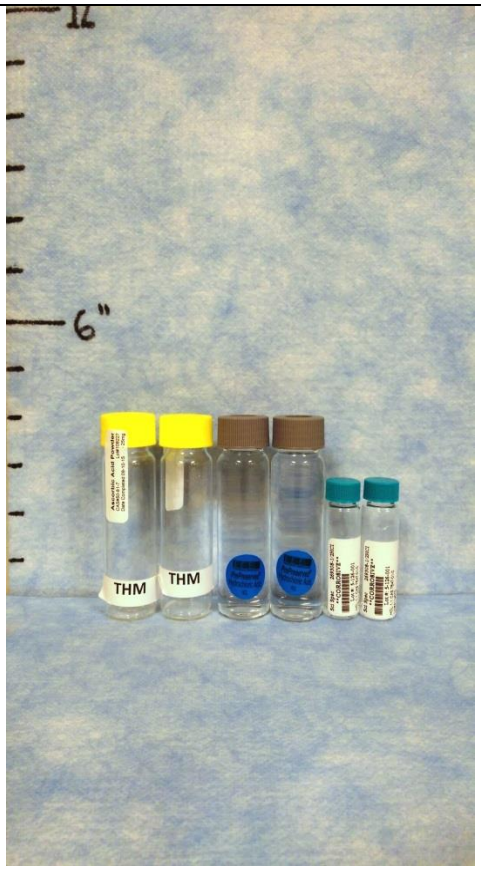
Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) **empty** 40mL clear glass vials
-Contains Ascorbic Acid preservative ($C_6H_8O_6$)
Two (2) 12mL preservative vials
-Contains HCl preservative

Two (2) 40mL clear, glass, **pre-filled field blanks**



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the tap for at least five (5) minutes, then adjust the flow to about a ¼ inch (pencil size) diameter.
3. Carefully remove the cap from one **empty sample vial** - **do not open the field blank**. Do not touch the inside of the cap or rim at the top of the bottle.
4. Angle the vial to allow the water to flow down the wall of the container and fill to about two-thirds (2/3) full.
5. Add the contents of one (1) of the 12mL preservative vials. **Caution: Handle with care. Preservative vials contain 1:1 hydrochloric acid. Rinse hands thoroughly in case of spill.**
6. Slowly add more water to the vial until the water bulges over the rim. Do not overflow.
7. Cap the vial securely. Invert to check for leaks and air bubbles. If any air is left in the container, add more water until no bubbles appear.
8. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
9. Repeat steps 3-8 for the remaining empty sample vial.
10. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Total Organic Carbon (TOC)

Code: TOC

Holding Time

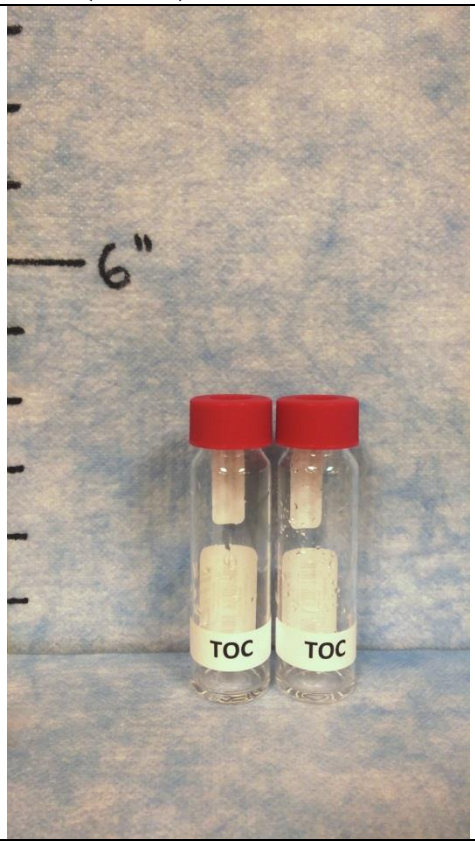
LONG: 28 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 40mL clear glass vials
-Contains H_2SO_4 preservative



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from one sample vial. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Total Organic Carbon/ Alkalinity
(TOCAL)

Code: TOCAL

Holding Time

MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) 40mL clear glass vials
-Contains H_2SO_4 preservative
& One (1) 250mL plastic cylinder bottle

COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream of about a 1/4 inch (pencil size) diameter.
3. Carefully remove the cap from one sample vial. Do not touch the inside of the cap or rim at the top of the bottle.
    a) **Caution: Handle with care.** Do not rinse containers and rinse hands thoroughly in the case of any chemical spills. Keep away from eyes and other sensitive areas.
4. Fill the container until the water bulges slightly over the top of the vial's rim. **Do not overflow the container.**
5. Apply the cap to the container tightly. Invert the container to check for leaks and then shake vigorously for one (1) minute to mix the sample with preservative.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. Repeat steps 3-6 for the remaining sample vial and alkalinity bottle.
8. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Unpreserved Nitrite
(UNN)

Code: UNN

Holding Time

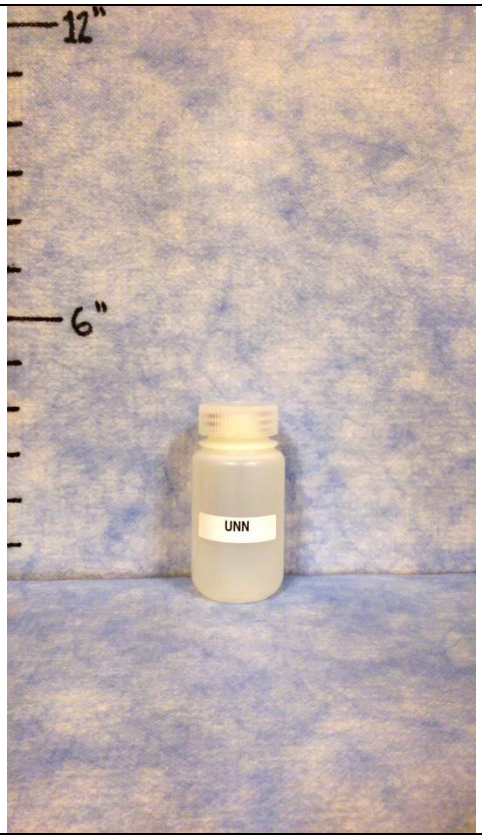
MEDIUM: 14 days

Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

One (1) 125mL Nalgene wide-mouth bottle



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the faucet for at least five (5) minutes, then adjust the flow to a slow, even stream so that the water is not aerated during collection.
3. Carefully remove the cap from the sample container. Do not touch the inside of the cap or rim at the top of the bottle.
4. Fill the container completely, including as little air as possible.
5. Apply the cap to the container tightly. Invert the container to check for leaks.
6. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
7. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.

Volatile Organic Compounds (VOC)

Code: VOC

Holding Time

MEDIUM: 14 days

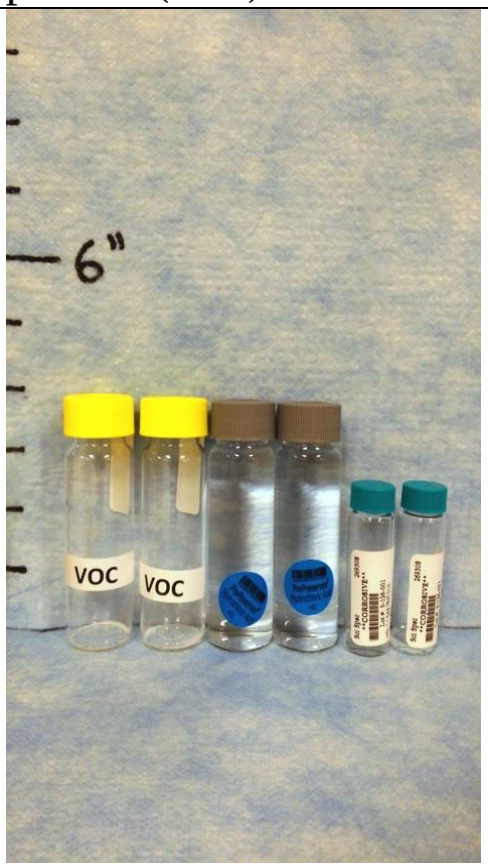
Cooling required during shipment?

Yes – Ship on ice. Cool to 0-6° C, or 32-42.8° F
(See shipping instructions)

Sample container:

Two (2) **empty** 40mL clear glass vials
-Contains Ascorbic Acid preservative ($C_6H_8O_6$)
Two (2) 12mL preservative vials
-Contains HCl preservative

Two (2) 40mL clear, glass, **pre-filled field blanks**



COLLECTION INSTRUCTIONS

1. Sample from a cold water tap and remove all faucet attachments such as a screen, splash guard, aerator, or filter.
2. Flush the tap for at least five (5) minutes, then adjust the flow to about a ¼ inch (pencil size) diameter.
3. Carefully remove the cap from one **empty sample vial - do not open the field blank**. Do not touch the inside of the cap or rim at the top of the bottle.
4. Angle the vial to allow the water to flow down the wall of the container and fill to about two-thirds (2/3) full.
5. Add the contents of one (1) of the 12mL preservative vials. **Caution: Handle with care. Preservative vials contain 1:1 hydrochloric acid. Rinse hands thoroughly in case of spill.**
6. Slowly add more water to the vial until the water bulges over the rim. Do not overflow.
7. Cap the vial securely. Invert to check for leaks and air bubbles. If any air is left in the container, add more water until no bubbles appear.
8. The peel-off label adheres better to a dry container. Dry the outside of the sample and remove the completed label from the form. Place the label on the container vertically (aligned with its length).
9. Repeat steps 3-8 for the remaining empty sample vial.
10. If samples must be stored before shipment to DCLS, keep them in a contaminant-free refrigerator.